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MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

A Constituent Institution of Manipal University

III SEMESTER B.TECH (PRINT AND MEDIA TECHNOLOGY)

END SEMESTER EXAMINATIONS, NOV/DEC 2016

SUBJECT: BASICS OF PRINT MEDIA [PMT 2101]

REVISED CREDIT SYSTEM

(23/11/2016)

Time: 3 Hours

MAX. MARKS: 50

Instructions to Candidates:

- ❖ Answer **ALL** the questions.
- ❖ Missing data may be suitable assumed.

- 1A. Explain with neat diagram, printing and finishing of business form using inline press.
- 1B. Compare applicator type gravure inking system with chambered gravure inking system.
- 1C. What is hybrid printing? What are the various hybridizations possible? Explain with example for each.

[04 + 03 + 03]

- 2A.
 - i. Describe squeegee and List its functions. Give examples of different squeegee shapes and mention their applications.
 - ii. Explain the principle of rotary screen printing with a neat diagram.
- 2B. With neat diagram, explain the CIC flexo press configuration and mention 4 advantages and 4 disadvantages.
- 2C. A label for a cosmetic bottle is to be printed with text, high quality graphics, the brand name with a relief and a gold foil finishing. Suggest the possible hybridization to print this job. Explain with an illustration.

[(02+02) + 03 + 03]

- 3A.
 - i. With a neat diagram, describe the drum pyramid design of offset inking unit.
 - ii. Describe monofilament and multifilament fabric meshes. Give examples for each of them.

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- 3B.** With a neat diagram, describe a web fed gravure printing unit. How is it different from sheet-fed unit? Explain.
- 3C.** Why is anilox roll called the ink metering roll? Explain the different cell structures used on anilox roller with their application.

[(02+02) + 03 + 03]

- 4A.** Explain with neat diagram, the components of a heat set Blanket-to-Blanket web offset press and mention their functions.
- 4B.** i. Describe the two methods of thermal transfer printing process with neat diagram.
ii. Explain the two types of continuous inkjet printing technologies.
- 4C.** A printing industry receives a job of printing a 4 page brochure which contains text to be printed in single color and pictures to be printed in multicolor in each page. The customer supplies text as digital file and the pictures as hard copies. If the prepress department is partially digitized and has CTF, then with a neat flow diagram, explain the workflow of the prepress department.

[04 + (02+02) + 02]

- 5A.** Explain the working principle of 3D printing software and printing method.
- 5B.** With neat diagrams, distinguish the “Reverse angle doctor- two roll flexo inking system” with “Positive angle-single roll flexo inking system”.
- 5C.** List 7 advantages and 5 disadvantages of gravure printing and justify each of them.

[04 + 03 + 03]